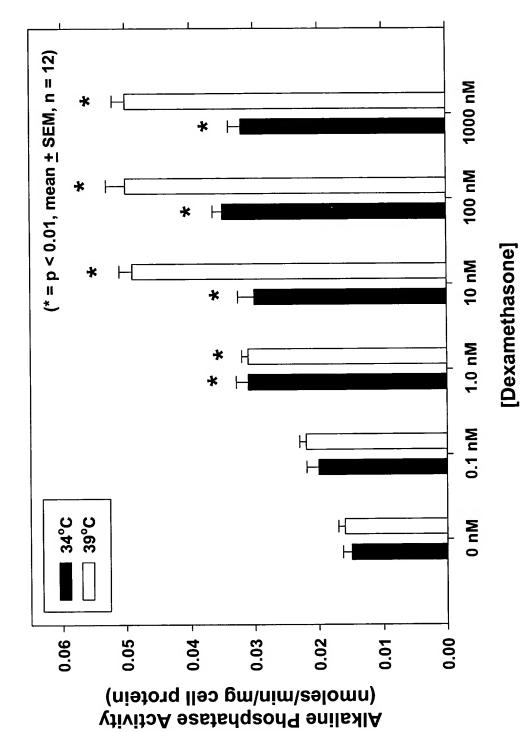


by Parathyroid Hormone in the HOB-01-C1-PS-09 Cells $(* = p < 0.05, mean \pm SEM, n = 3-4)$ 80 nM Regulation of Intracellular cAMP Levels 8.0 nM [hPTH 1-34] 0.8 nM 0.08 nM 0.008 nM 100 700 009 500 400 300 200 1000 900 800 (% Relative to Control) Intracellular cAMP Concentration

by Dexamethasone in the HOB-01-C1-PS-09 Cells Regulation of Alkaline Phosphatase Activity





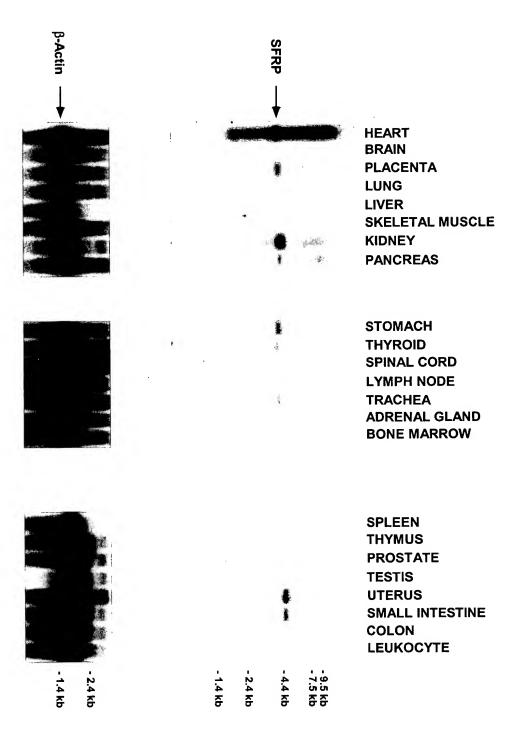
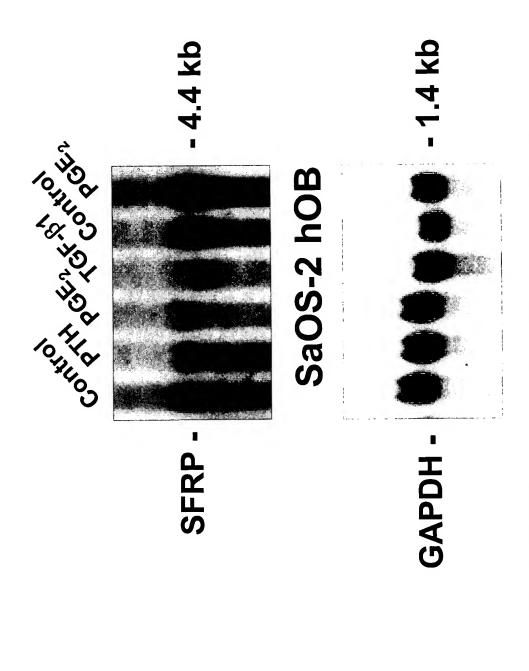


Figure 5: Osteogenic RADE Confirmation: SFRP

poly (A)+ RNA Northen Blot (Probed with Cloned 1.1 kb Fragment)



SFRP/GAPDH:

1.0 0.9 0.7 0.9 1.0 1.3

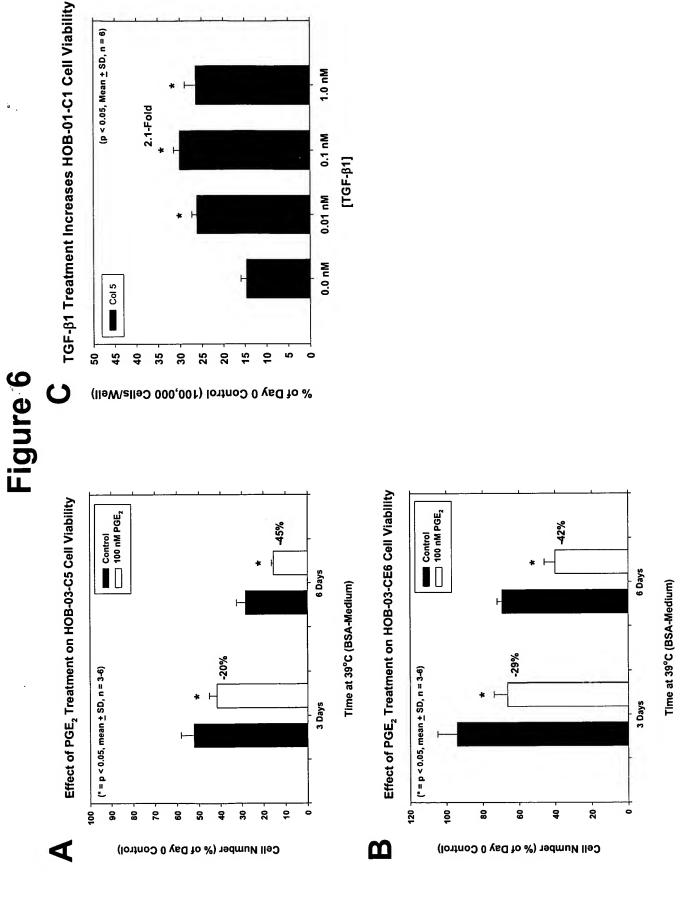
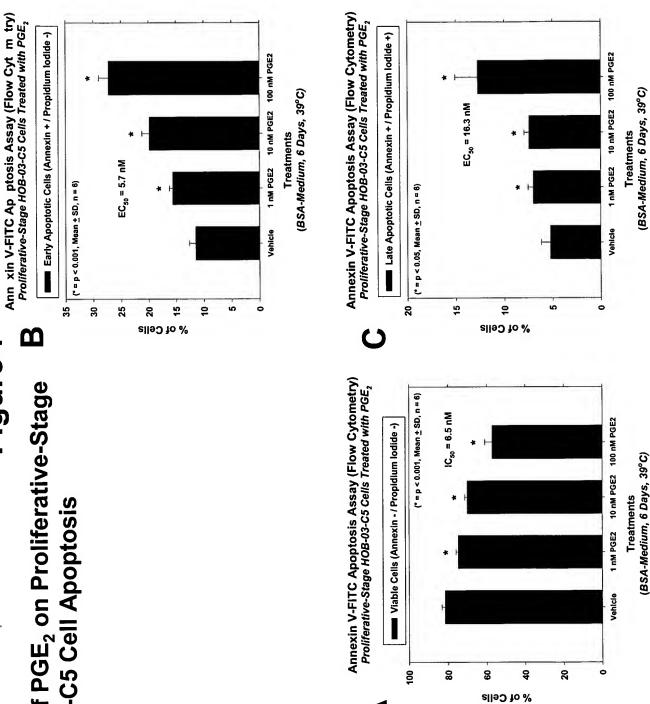


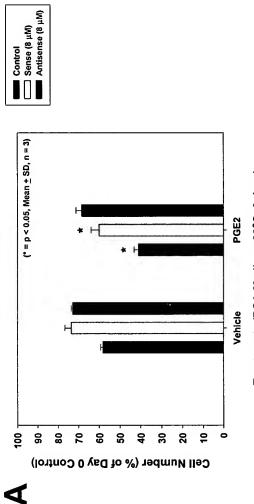
Figure 7 Effect of PGE₂ on Proliferative-Stage **HOB-03-C5 Cell Apoptosis**



4

Figure 8

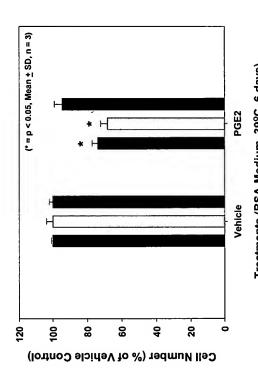
An Initiation Site-Directed Antisense Oligonucleotide for SARP-2 Reverses the Induction of Cell Death by PGE₂ in HOB-03-C5 Cells



Treatments (BSA-Medium, 39°C, 3 days)

An Initiation Site-Directed Antisense Oligonucleotide for SARP-2
Reverses the Induction of Cell Death by PGE₂ in HOB-03-CE6 Cells

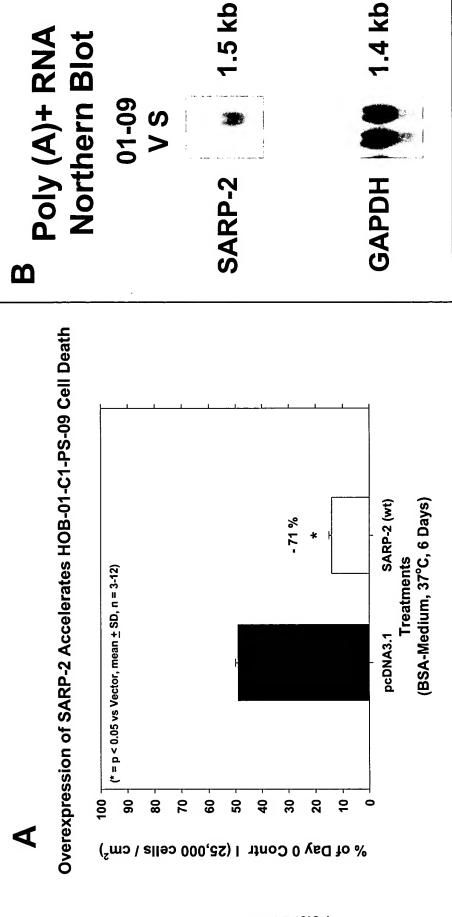
120 (*= p < 0.05, Mean ± SD, n = 3)



Treatments (BSA-Medium, 39°C, 6 days)

SARP-2 Overexpression Accelerates HOB Cell Death Figure 9



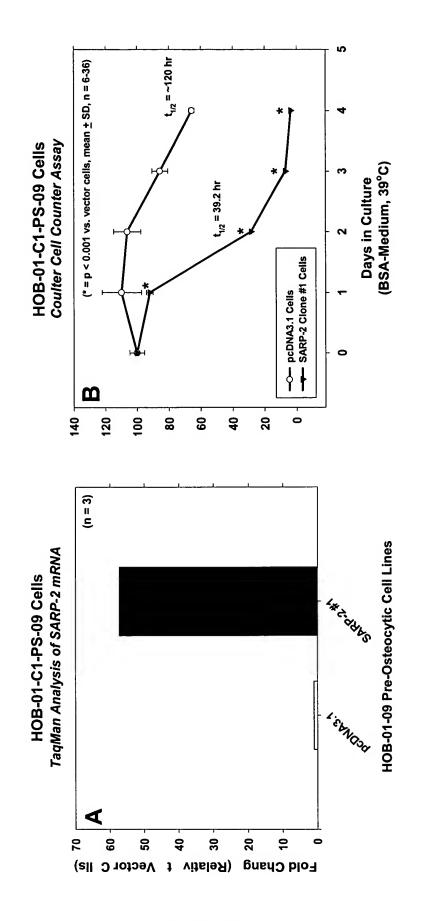


(Cell Number Determined by the Coulter Counter)

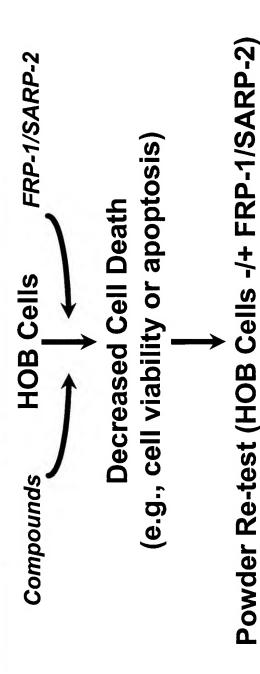
Peter Bodine ISU160M001/0E800

Figure 10

SARP-2 Overexpression Accelerates HOB Cell Death In Vitro Target Validation



00630/100M091US1 Peter Bodine Screening Paradigm for an Anabolic Bone Agent



Non-Bone Cells (e.g., MCF-7 or Other Cells) + FRP-1/SARP-2 Dose Response: HOB Cells + FRP-1/SARP-2

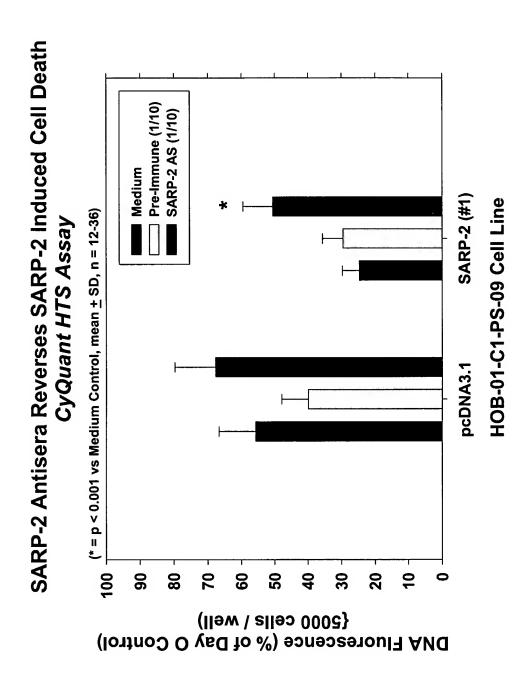
• HOB Cells + SARP-1, 3, Fritz/FrzB & Others

HOB Cells + FRP-1/SARP-2: Additional Assays

(e.g., cell #, apoptosis & Wnt activity)

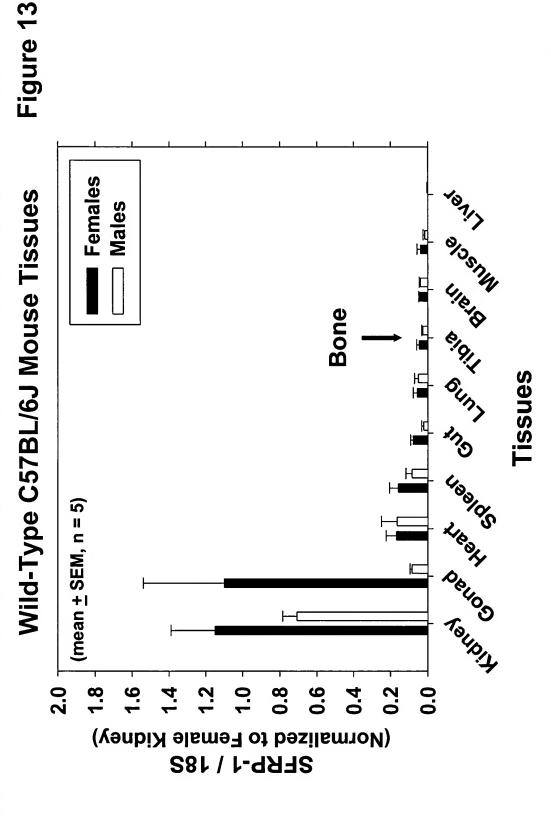
In Vivo Bone Formation Models

Figure 12



[BSA-Medium, 39°C, 3 Days]

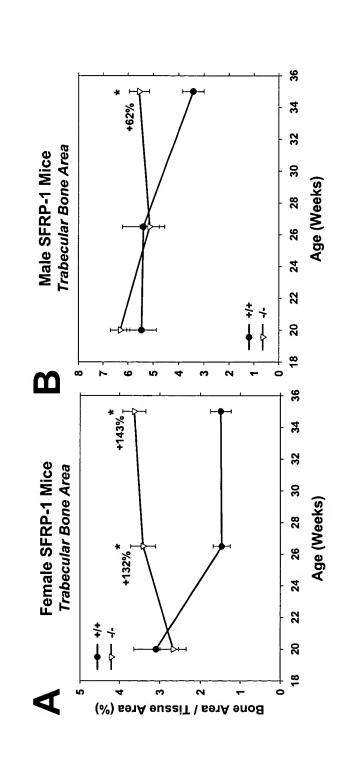
TaqMan Quantitative RT-PCR Analysis of Total RNA Relative Tissue Distribution of Mouse SFRP-1



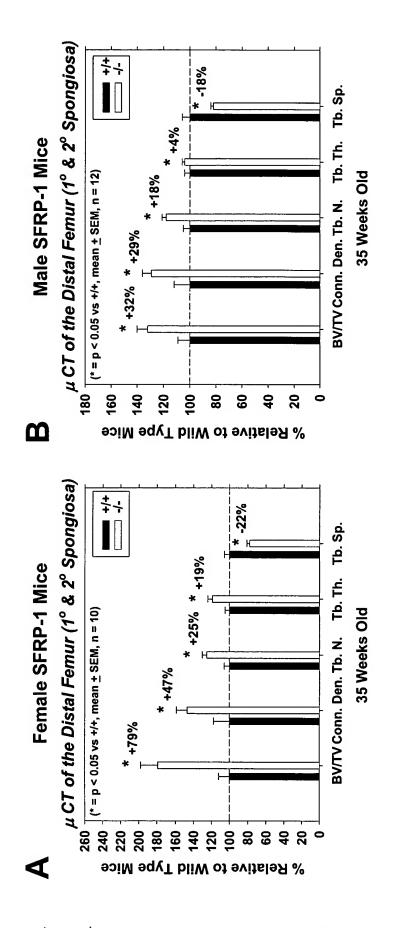
SFRP-1 mRNA is Highly Expressed in the Kidney & Ovary

00630/100M091US1 Peter Bodine

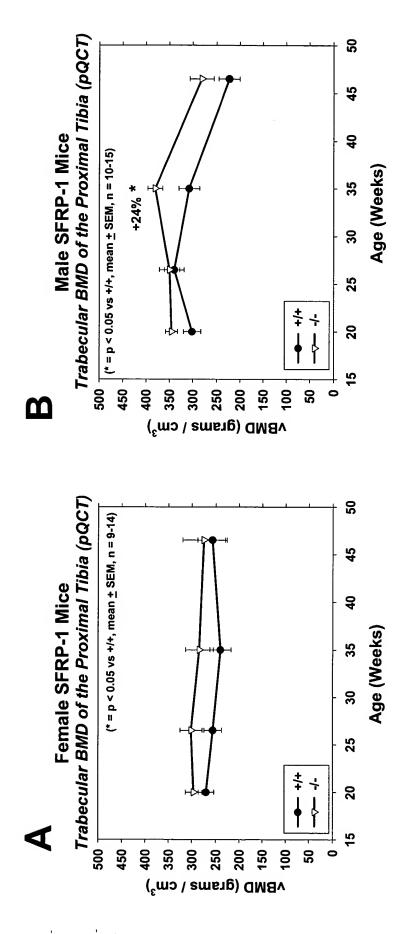
Figures 14A and B



SFRP-1 KO Mice

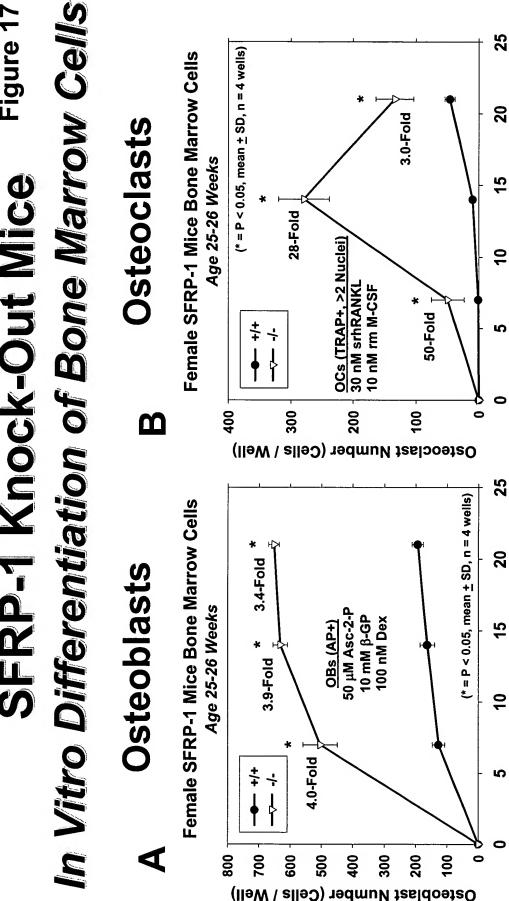


SFRP-1 KO Mice



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Figure 17 SFRP-1 Knock-Out Mice



Osteoblast and Osteoclast Differentiation In Vitro **Deletion of SFRP-1 In Vivo Enhances**

Days of Incubation

Days of Incubation

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